

REMARKS

The Office Action mailed December 7 has been received and reviewed. Claims 1-23 are pending in the case. Claim 18 stands rejected under 35 U.S.C. §112 ¶2 as being indefinite. Claims 1-3, 5-19, and 21-23 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,666,068 to Boyd. Claims 1-5 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,150,622 to Vollweiller. Claim 13 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 4,807,707 to Handley. Claims 8, 9, 11, and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Handley in view of U.S. Patent 4,452,091 to Richers. Claim 20 is objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form.

REJECTIONS UNDER 35 U.S.C. §112 ¶2

Claim 18 stand rejected under 35 U.S.C. §112 ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. In particular, the term “the mounting plate” is objected to for lack of antecedent basis. By this amendment the term “mounting plate” has been added to claim 17 upon which claim 18 depends to provide proper antecedent basis.

REJECTIONS UNDER 35 U.S.C. §102

Claims 1-3, 5-19, and 21-23 stand rejected under 35 U.S.C. §102(e) as being anticipated by Boyd. Claims 1-5 stand rejected under 35 U.S.C. §102(b) as being anticipated by Vollweiller.

With respect to amended claim 1, Applicants assert that a *prima facie* case of anticipation has not been established. In order to establish anticipation each and every element of the claimed invention must be found in a single prior art reference. None of the cited references show a method for monitoring the subsurface under a facility for volatile organic compounds including the step of determining the location at which to monitor subsurface volatile organic compounds


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(VOC) at the facility based on proximity to where volatile organic compound release to the subsurface under the facility is made possible by the facility structure.

Boyd discloses only placement of a monitoring station where a release of VOCs is likely to occur. Boyd therefore fails to appreciate the critical benefit of monitoring weak points of a structure where VOCs are likely to seep into the ground, even if such weak points are not close to places where chemical releases are likely to occur. Boyd only discusses placement of monitoring stations where chemical releases are likely to occur. Col. 4, lns. 30-33. Vollweiller discloses only a probe that is simply inserted into the ground to expose an end filter to soil vapors. Col. 1, ln. 33 – Col. 2, ln. 35. Vollweiller does not discuss inserting the probe at points in a facility where release to the subsurface of the facility is made possible by the facility structure.

Claim 2 has been cancelled rendering its rejection moot. Claim 3 and 4 are dependent on allowable claim 1 and is therefore allowable for at least the reasons discussed hereinabove.

With respect to amended claim 5, Applicant asserts that none of the cited references disclose inserting a monitoring station into the surface penetration, the monitoring station comprising a mounting plate and a generally tubular member extending substantially perpendicularly from the mounting plate; and forming a seal between the monitoring station and the facility surface, wherein forming a seal between the monitoring station and the facility surface comprises applying a sealant to the facility surface substantially around the surface penetration to facilitate creation of the seal between the monitoring station and the facility surface and positioning the mounting plate on the seal having the generally tubular member extending into the penetration.

As noted in the specification, the construction recited in claim 5 provides an improved seal that resists movement of VOCs and other contaminants into the surface penetration. The mounting plate and seal rest on the surface and are therefore not affected by changes in the size of the penetration due to degradation or thermal expansion. They provide a novel and improved

means for preventing release of VOCs into the subsurface and for capturing VOCs escaping from the subsurface.

Boyd discloses only positioning a seal, such as grout, in the annular region surrounding a PVC pipe inserted into a hole formed in a surface. Col. 5, lns. 58-63. This permits migration of VOCs into the subsurface at the interface between the PVC pipe and the grout. Polyvinyl chloride is well known to be degraded by many VOCs. Accordingly, the system of Boyd enables release of VOCs as they degrade the PVC pipe to further expand the path between the PVC pipe and the grout. Gaps between the grout and the PVC pipe will also result from differential thermal expansion and contraction of the pipe, grout, and subsurface further enabling release of VOCs to the subsurface.

Claims 6-16 have been cancelled rendering their rejections moot.

With respect to claim 17, Applicants assert that none of the cited references teach or suggest a soil probe for monitoring the subsurface under a facility surface for volatile organic compounds, comprising a mounting plate comprising an aperture, and a neck secured to the mounting plate proximate the aperture; a monitoring port cap configured to close the monitoring port to minimize the movement of undesirable materials between the facility and the subsurface via the monitoring port; and a sampling adaptor configured to interface with the monitoring port and a sampling pump to allow the withdrawal of a soil gas sample from the subsurface under the facility surface.

As noted above, Boyd discloses only a simple PVC pipe with a threaded PVC cap and does not anticipate the novel improvements recited by Applicants. As further noted above, these features are important for enabling capture of VOCs as well as preventing contamination of the substrate through the penetration in the surface. As further noted above, Vollweiller is a simple probe that is inserted into the ground and provides no sealing mechanism.

Claim 19 is dependent on allowable claim 17 and is therefore allowable for at least the reasons discussed hereinabove. In addition, Boyd discloses only a threaded interface between the PVC pipe and the PVC cap rather than the use of a sealing member as recited in claim 19.

REJECTIONS UNDER 35 U.S.C. §103

Claims 8, 9, 11 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Handley in view of U.S. Patent 4,452,091 to Richers. Claims 8, 9, 11 and 14 have been cancelled rendering their rejections moot.

ALLOWABLE SUBJECT MATTER

Claim 20 is objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form. By this amendment the limitations of claims 17 have been incorporated into claim 20 and claim 20 has been rewritten as an independent claim. Claim 20 is therefore in condition for allowance. Claims 21 and 22 are dependent on claim 20 and are therefore allowable for at least the reasons discussed hereinabove. In addition, Boyd fails to provide the benefit of the multi-pin turning tool and corresponding recesses formed in the monitoring port cap as recited in claim 21. These recesses ensure that unauthorized people using commonly available screwdrivers cannot remove the monitoring cap. Boyd fails to provide the improved sealing of a distinct sealing element as recited in claim 21. As previously noted, Boyd also fails to recite the use of sealing means as recited in claim 22, but rather relies on the simple threaded interface of the PVC pipe and PVC cap.


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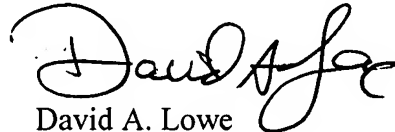

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CONCLUSION

In view of the foregoing, Applicant believes the claims to be in condition for immediate allowance. The Examiner is invited to call the undersigned to resolve any questions or concerns that may be resolved by a telephone conference.

Respectfully submitted,

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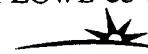
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